**c. ) Amendments to the Claims**

No amendments to the claims are requested.

Claim 13. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction,;

a plurality of shape memory components, each extending generally in said first direction and connected between two adjacent sub-modules;

means for heating said shape memory components beyond the memory transition temperature to contract all of said shape memory components and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module.

Claim 14. (Previously presented) -- A linear actuator, including:

at least three sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction;

a plurality of shape memory components, each extending generally in said first direction and connected between two adjacent sub-modules;

means for heating said shape memory components beyond the memory transition temperature to contract said shape memory components and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module.

Claim 15. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction;

a plurality of shape memory wires, each extending generally in said first direction and connected between two adjacent sub-modules;

means for heating said shape memory wires beyond the memory transition temperature to contract said shape memory wires and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module.

Claim 16. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction,;

a plurality of shape memory components, each extending generally in said first direction and connected between two adjacent sub-modules;

means for securing said sub-modules in said closely spaced array and permitting reciprocal movement of said sub-modules solely in said first direction;

means for heating said shape memory components beyond the memory transition temperature to contract said shape memory components and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module.

Claim 17. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction,;

a plurality of shape memory components, each extending generally in said first direction and connected between two adjacent sub-modules;

means for heating said shape memory components beyond the memory transition temperature to contract said shape memory components and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module; and,

return means for resiliently opposing said stroke displacements of said plurality of sub-modules and translating said sub-modules retrograde with respect to said first direction.

Claim 18. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction;

a plurality of shape memory components, each extending generally in said first direction and connected between two adjacent sub-modules;

means for heating said shape memory components beyond the memory transition temperature to contract all of said shape memory components and urge said sub-modules to translate in said first direction, each sub-module undergoing a stroke displacement with respect to the adjacent sub-module;

said shape memory components forming serial mechanical connections between said sub-modules that combine said stroke displacements of said sub-

modules in additive fashion to impart a long stroke output to an output sub-module.

Claim 19. (Previously presented) -- A linear actuator, including:

a plurality of sub-modules disposed in closely spaced array and adapted to undergo reciprocal translation in a first direction;

said sub-modules each including a plate-like bar, said plate-like bars extending in said first direction in parallel, stacked relationship;

a plurality of shape memory wires, each extending generally in said first direction and connected between two adjacent plate-like bars;

means for heating said shape memory wires beyond the memory transition temperature to contract all said shape memory wires and urge said plate-like bars to translate in said first direction, each plate-like bar undergoing a stroke displacement with respect to the adjacent plate-like bar;

said shape memory wires forming serial mechanical connections between said plate-like bars that combine said stroke displacements of said plate-like bars in additive fashion to impart a long stroke output to an output sub-module.

Claim 20. (Previously presented) -- A compact, linear actuator comprising a plurality of bars arranged in close proximity adjacent to each other, and linearly movable in forward and aft directions and linearly replaceable relative to each other, and a plurality of shape memory wires each constructed of a material which contracts when heated above its memory transition temperature and arranged

between each pair of adjacent bars, a first end of each wire being attached to one of the bars of the pair of bars proximate a forward end thereof and a second end of each wire attached to the other bar of the pair of bars adjacent an aft end thereof, the wires being further arranged so that they cause movement of the bars in the forward direction when heated above the transition temperature, and means for heating the wires beyond the memory transition temperature so that the contracting wires cause movement of one of the bars in the forward direction by an amount substantially equal to the combined, relative forward movement of all bars of the plurality of bars.

Claim 21. (Previously presented) -- A linear actuator according to claim 20 including a support for the bars defining a guideway for each of the bars which guides the bars in the forward and aft directions.

Claim 22. (Previously presented) -- A linear actuator according to claim 20 including a member for anchoring a first one of the plurality of bars to the support.

Claim 23. (Previously presented) -- A linear actuator according to claim 22 wherein the member comprises a shape memory wire having a first end anchored to the support and a second end attached to the first bar.

Claim 24. (Previously presented) -- A linear actuator according to claim 21 wherein the support comprises a housing substantially encapsulating the bars.

Claim 25. (Previously presented) -- A linear actuator according to claim 24 including an opening in the housing permitting linear translational movement of a last one of the bars to an exterior of the housing.

Claim 26. (Previously presented) -- A linear actuator according to claim 20 including a structure applying a force to the bars urging the bars in the aft direction for facilitating a return of the bars to their rest position after the temperature of the wires drops below the memory transition temperature.

Claim 27. (Previously presented) -- A linear actuator according to claim 26 wherein the bars are movable between an aft, rest position and a forward extended position, and wherein the structure applies a force to the bars which decreases as the bars travel in the forward direction from their rest positions to their extended positions.

Claim 28. (Previously presented) -- A linear actuator according to claim 20 including a member maintaining the bars in close proximity to each other during movement in the forward and aft directions.

Claim 29. (Previously presented) -- A linear actuator according to claim 28 wherein the member comprises a support for the bars and guideways formed by the member along which the bars move in the forward and aft directions.

Claim 30. (Previously presented) -- A compact, linear actuator comprising a plurality of plate members stacked in close proximity on top of each other and

terminating in top and bottom plate members, and an arrangement permitting the plate members to linearly move with respect to each other in forward and aft directions between an extended position and a rest position and maintaining the plates stacked one on top of the other during movements in the forward and aft directions, a plurality of shape memory wires which contract when heated to its memory transition temperature and disposed between each pair of adjacent plate members, each wire having a forward end attached proximate a forward end of one of the plate members of the pair and an aft end attached proximate an aft end of the other one of the plate members of the pair, the wires being attached to the respective plate members so that, upon contraction of the wires, the wires cause relative movement between all plate members in the forward direction, and means for heating the wires beyond a memory transition temperature thereby to move one of the top and bottom members in a forward direction by an amount about equal to the combined amount of relative forward movement of all plate members.

Claim 31. (Previously presented) --A linear actuator according to claim 30 wherein one of the top and bottom plate members forms a reciprocating actuator member.

Claim 32. (Previously presented) --A linear actuator according to claim 30 wherein the wires are located between opposing surfaces of plate members.

Claim 33. (Previously presented) --A linear actuator according claim 30 wherein opposing surfaces of adjacent plate members touch each other.

Claim 34. (Previously presented) --A compact, linear actuator comprising a plurality of elongated bars having surfaces in mutual contact and being mounted in stacked relationship for linear, back-and-forth movement between a rest position and an extended position, a first bar defining one end of the stack of bars and a last bar of the stack defining an actuator member, a plurality of wires made of shape memory material which contracts when heated beyond its memory transition temperature, a forward end of each wire being attached to a forward end of a bar and an aft end of each wire being attached to an aft end of the adjacent bar which is relatively closer to the actuator member, a support operatively coupled with the bars and permitting movement of and guiding the bars during back-and-forth movements between the rest and extended positions, a source of electric current coupled with the wires for intermittently subjecting the wires to an electric current which heats the wires beyond the memory transition temperature and causes a contraction of the wires to move all bars with respect to the first bar in the forward direction, whereby the last bar travels the longest distance of all bars in the forward direction when the wires are electrically heated, and an arrangement causing the bars to move in the aft direction towards the rest position when the temperature of the wires drops below the memory transition temperature.